

REMARKS

In view of the preceding amendments and the comments which follow, and pursuant to 37 C.F.R. § 1.111, amendment and reconsideration of the Official Action of February 25, 2005 is respectfully requested by Applicants.

Summary

Claims 1 – 4 are pending. Claims 1 and 2 have been cancelled. Claims 5 and 6 have been added. No new matter has been introduced as a result of these amendments.

Claims 2 - 6 are pending following entry of the present remarks.

Claim Objections under 35 USC §102

The Examiner has rejected Claims 1 – 4 under 35 U.S.C. §102(b) as being anticipated by Araki et al (European Patent Application 0418149).

The rejections of Claims 1 and 2 are now moot view of their cancellation by Applicants.

Claim 3 is directed to a vehicular electronic apparatus. The vehicular electronic apparatus has an electronic unit which includes a microcomputer, and a crystal oscillator for determining an operating frequency for the microcomputer.

Claim 3 further recites that an oscillation frequency of the crystal oscillator is selected such that a frequency difference between an FM broadcast receiving frequency of a vehicular receiver and the oscillation frequency of the crystal oscillator or a higher harmonic of the oscillation frequency is at most 400 Hz, to suppress an interference in receiving the FM broadcast wave.” Applicants submit that Araki et al. fail to disclose or suggest this distinguishable claimed feature.

In Araki et al., when the FM broadcast signal is received by the synthesizer type receiver, the clock frequency (oscillator frequency) f_c is shifted when required in response to the selected receiving frequency f_r so that the reception of the FM broadcast signal will not be disturbed by the higher harmonic components. That is, in

Araki et al., when the FM broadcast signal is received at the selected receiving frequency f_r which does not satisfy the following inequality:

$$\underline{n} (f_c - \Delta f/2) < f_r < \underline{n} (f_c + \Delta f/2)$$

where \underline{n} represents the order of the higher harmonic component of the oscillator frequency f_c , and $\Delta f = 95$ kHz, then the oscillator frequency is maintained at 4.2 MHz, otherwise the oscillator frequency is shifted by the amount $\Delta f = 95$ kHz.

Thus, Araki et al. do not teach or suggest a selection of the oscillation frequency of the crystal oscillator such that the frequency difference between the FM broadcast receiving frequency and the oscillation frequency of the crystal oscillator or a higher harmonic of the oscillation frequency is at most 400 Hz.

Claim 4 is directed to a vehicular electronic apparatus. The vehicular electronic apparatus has an electronic unit which includes a microcomputer, and a crystal oscillator for determining an operating frequency for the microcomputer.

Claim 4 further recites that "a receiving frequency of a vehicular receiver and an oscillation frequency of the crystal oscillator or a higher harmonic of the oscillation frequency are coincident in frequency, to suppress an interference in receiving the broadcast wave."

As remarked above in regard to Claim 3, Araki et al. either maintains the oscillator frequency at 4.2 MHz, or shifts it by the amount $\Delta f = 95$ kHz but does not teach or suggest that the receiving frequency of a vehicular receiver and the oscillation frequency of the crystal oscillator or a higher harmonic of the oscillation frequency are coincident in frequency.

Thus, in Araki et al., interference is not generated by preventing the oscillator frequency from matching the receiving frequency. In contrast, as recited in Claims 3 and 4 interference is not generated by having the oscillator frequency and the receiving frequency match or being within 400 Hz of each other.

Accordingly, Claims 3 and 4 are not anticipated by Araki et al.

The Examiner has next rejected Claims 1 – 4 under 35 U.S.C. §102(b) as being anticipated by Imai al (U.S. Patent 4,403,350). Again, the rejections of Claims 1 and 2 are now moot view of their cancellation by Applicants.

In regard to both Claims 3 and 4, Applicants submit that Imai et al. are silent about the frequency difference between the FM broadcast receiving frequency and the oscillation frequency of the crystal oscillator or a higher harmonic of the oscillation frequency being at most 400 Hz, as well as about the receiving frequency of a vehicular receiver and an oscillation frequency of the crystal oscillator or a higher harmonic of the oscillation frequency being coincident in frequency. In fact, Imai et al. teach that interferences resulting from any frequency difference of less than 10 KHz within a broadcast receiver environment are avoided.

According Claims 3 and 4 are not anticipated by Imai et al.

Thus, Claims 3 and 4 are allowable, and Applicants respectfully request that these claim rejections be withdrawn.

New Claims 5 and 6 which are dependent on Claims 3 and 4 respectively, shown above to be allowable, are also allowable.

Conclusion

Therefore, in view of the above amendment and remarks, Applicants respectfully submit that this application is in condition for allowance and such action is earnestly requested. If for any reason, however, the Examiner feels that a telephone interview would be helpful in resolving any remaining issues the Examiner is respectfully requested to contact Applicant's undersigned attorney.

Respectfully submitted,



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